FIG. 1

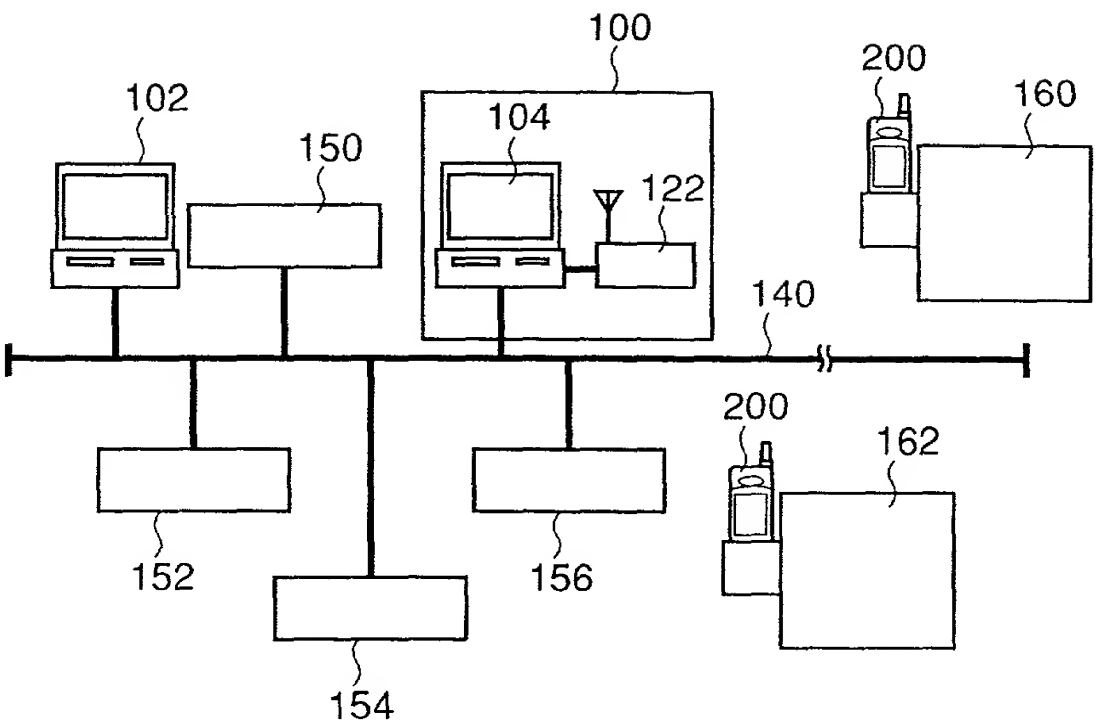
100
102
150
104
122
200
160
140
200
162
152
156
154

FIG. 2

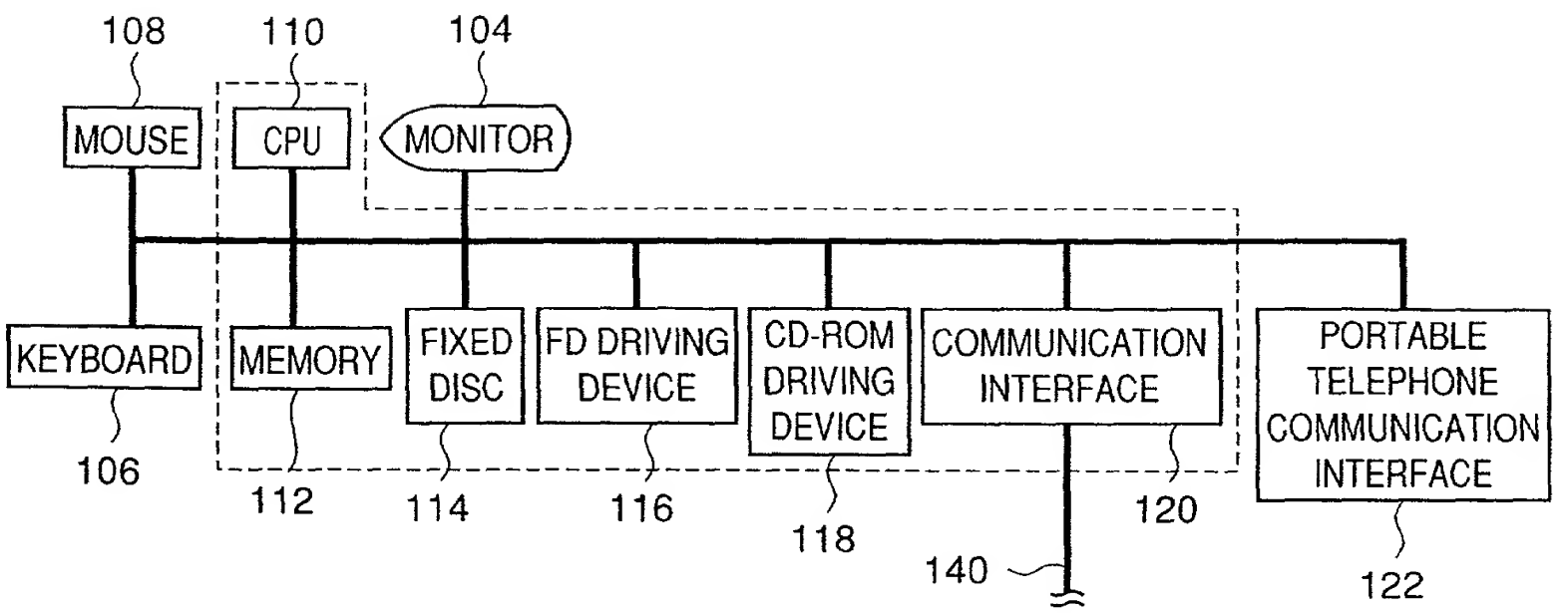
108
110
104
MOUSE
CPU
MONITOR
KEYBOARD
MEMORY
FIXED DISC
FD DRIVING DEVICE
CD-ROM DRIVING DEVICE
COMMUNICATION INTERFACE
PORTABLE TELEPHONE COMMUNICATION INTERFACE
106
112
114
116
118
140
120
122

FIG. 3

LOT NUMBER	TELEPHONE NUMBER	PRODUCT NUMBER	FIRST PROCESS	SECOND PROCESS	THIRD PROCESS	FOURTH PROCESS	FIFTH PROCESS	...	CHANGE DATA
0004140001	090 (1234) 1201	1004	NORMAL COMPLETION OF PROCESS C 00/04/14/16:35:00	NORMAL COMPLETION OF PROCESS L 00/04/15/08:22:00	NORMAL COMPLETION OF PROCESS H 00/04/15/10:45:00				
0004140002	090 (1234) 1202	1002	NORMAL COMPLETION OF PROCESS B 00/04/14/15:20:00	COMPLETION OF PROCESS H CUTTING ERROR SHORTAGE OF 0.05 mm 00/04/15/08:55:00	COMPLETION OF PROCESS C OVEREDGE 00/04/15/12:25:00	NORMAL COMPLETION OF PROCESS D 00/04/15/14:45:00			AMOUNT OF CUT IN PROCESS K OF LOT NUMBER 0004140002 IS INCREASED BY 0.05 mm.
0004140003	090 (1234) 1203	1002	NORMAL COMPLETION OF PROCESS B 00/04/15/13:30:00	COMPLETION OF PROCESS H 00/04/15/17:30:00					PROGRAM CHANGE FOR PROCESS D FOR LOT NUMBER 0004140003 PROGRAM NUMBER : W2933 → W1540
0004140004	090 (1234) 1204	1003	NORMAL COMPLETION OF PROCESS A 00/04/15/10:14:00	NORMAL COMPLETION OF PROCESS B 00/04/15/09:10:00	NORMAL COMPLETION OF PROCESS K 00/04/15/14:25:00	NORMAL COMPLETION OF PROCESS L 00/04/15/16:10:00	NORMAL COMPLETION OF PROCESS E NO ABNORMALITY AT INSPECTION 00/04/15/17:10:00		
0004140005	090 (1234) 1205	1001	NORMAL COMPLETION OF PROCESS A 00/04/14/10:12:00	NORMAL COMPLETION OF PROCESS B 00/04/14/13:30:00	NORMAL COMPLETION OF PROCESS C 00/04/13/15:30:00				
0004140006	090 (1234) 1206	1005							

FIG. 4

PRODUCTION NUMBER : 1001		
PROCESS NUMBER	PROCESS	PROCESS CONDITION
1	PROCESS A	CUTTING OF 15 SECONDS
2	PROCESS B	OXIDIZED THIN FILM 0.10 μm
3	PROCESS C	AMOUNT OF CUT 10 mm
4	PROCESS D	PROGRAM NUMBER: W2933
5	PROCESS E	INSPECTION STANDARD 3
6	PROCESS F	PROGRAM NUMBER: W2934
7	PROCESS G	INITIAL COORDINATE X = 0, Y = 30300
8	PROCESS H	AMOUNT OF CUT 0.55 mm

FIG. 5

PRODUCTION NUMBER : 1002		
PROCESS NUMBER	PROCESS	PROCESS CONDITION
1	PROCESS B	OXIDIZED THIN FILM 0.15 μm
2	PROCESS H	AMOUNT OF CUT 0.5 mm
3	PROCESS C	AMOUNT OF CUT 3 mm
4	PROCESS D	PROGRAM NUMBER: W2933
5	PROCESS K	AMOUNT OF CUT 1.25 mm
6	PROCESS L	PROGRAM NUMBER: W305
7	PROCESS G	INITIAL COORDINATE X = 0, Y = 1300
8	PROCESS A	CUTTING OF 12 SECONDS
9	PROCESS B	OXIDIZED THIN FILM 0.10 μm
10	PROCESS J	IRRADIATION OF 100 SECONDS

FIG. 6

PRODUCTION NUMBER : 1003		
PROCESS NUMBER	PROCESS	PROCESS CONDITION
1	PROCESS A	CUTTING OF 10 SECONDS
2	PROCESS B	OXIDIZED THIN FILM 0.08 μm
3	PROCESS K	AMOUNT OF CUT 1.25 mm
4	PROCESS L	PROGRAM NUMBER: W3053
5	PROCESS E	INSPECTION STANDARD 4
6	PROCESS D	PROGRAM NUMBER: W2944
7	PROCESS G	INITIAL COORDINATE X = 0, Y = 1200

FIG. 7

PRODUCTION NUMBER : 1004		
PROCESS NUMBER	PROCESS	PROCESS CONDITION
1	PROCESS C	AMOUNT OF CUT 2.5 mm
2	PROCESS L	PROGRAM NUMBER: H1212
3	PROCESS H	AMOUNT OF CUT 0.5 mm
4	PROCESS C	AMOUNT OF CUT 4.5 mm
5	PROCESS B	OXIDIZED THIN FILM 0.10 μm
6	PROCESS A	CUTTING OF 15 SECONDS
7	PROCESS B	OXIDIZED THIN FILM 0.10 μm
8	PROCESS G	INITIAL COORDINATE X = 10, Y = 10
9	PROCESS H	AMOUNT OF CUT 0.4 mm
10	PROCESS E	INSPECTION STANDARD 2

FIG. 8

PRODUCTION NUMBER : 1005		
PROCESS NUMBER	PROCESS	PROCESS CONDITION
1	PROCESS K	AMOUNT OF CUT 3 mm
2	PROCESS G	INITIAL COORDINATE X = 10, Y = 10
3	PROCESS J	IRRADIATION OF 100 SECONDS
4	PROCESS B	OXIDIZED THIN FILM 0.12 μm
5	PROCESS C	AMOUNT OF CUT 3 mm
6	PROCESS D	PROGRAM NUMBER: W304
7	PROCESS L	PROGRAM NUMBER: B1002
8	PROCESS C	AMOUNT OF CUT 3 mm

FIG. 9

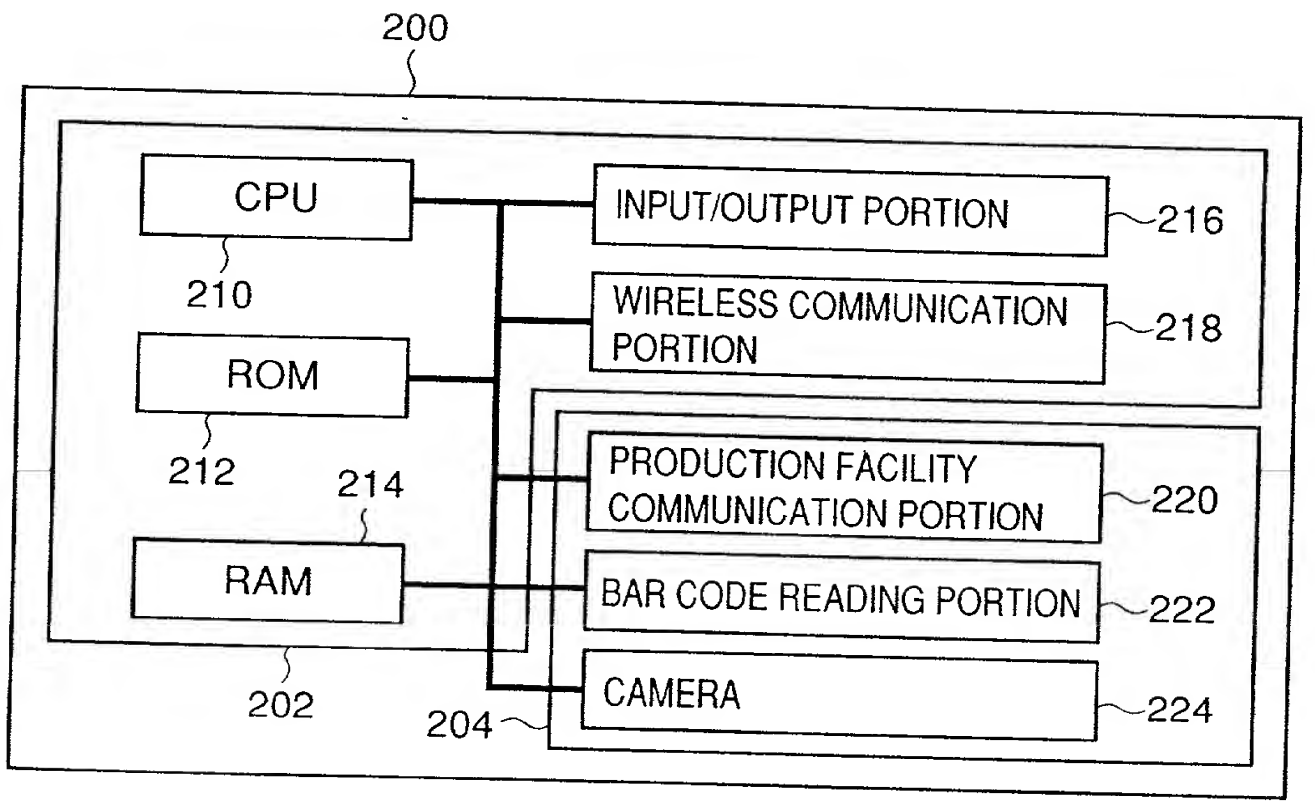
200
CPU
210
ROM
212
214
RAM
202
204
INPUT/OUTPUT PORTION
216
WIRELESS COMMUNICATION PORTION
218
PRODUCTION FACILITY COMMUNICATION PORTION
220
BAR CODE READING PORTION
222
CAMERA
224

FIG. 10

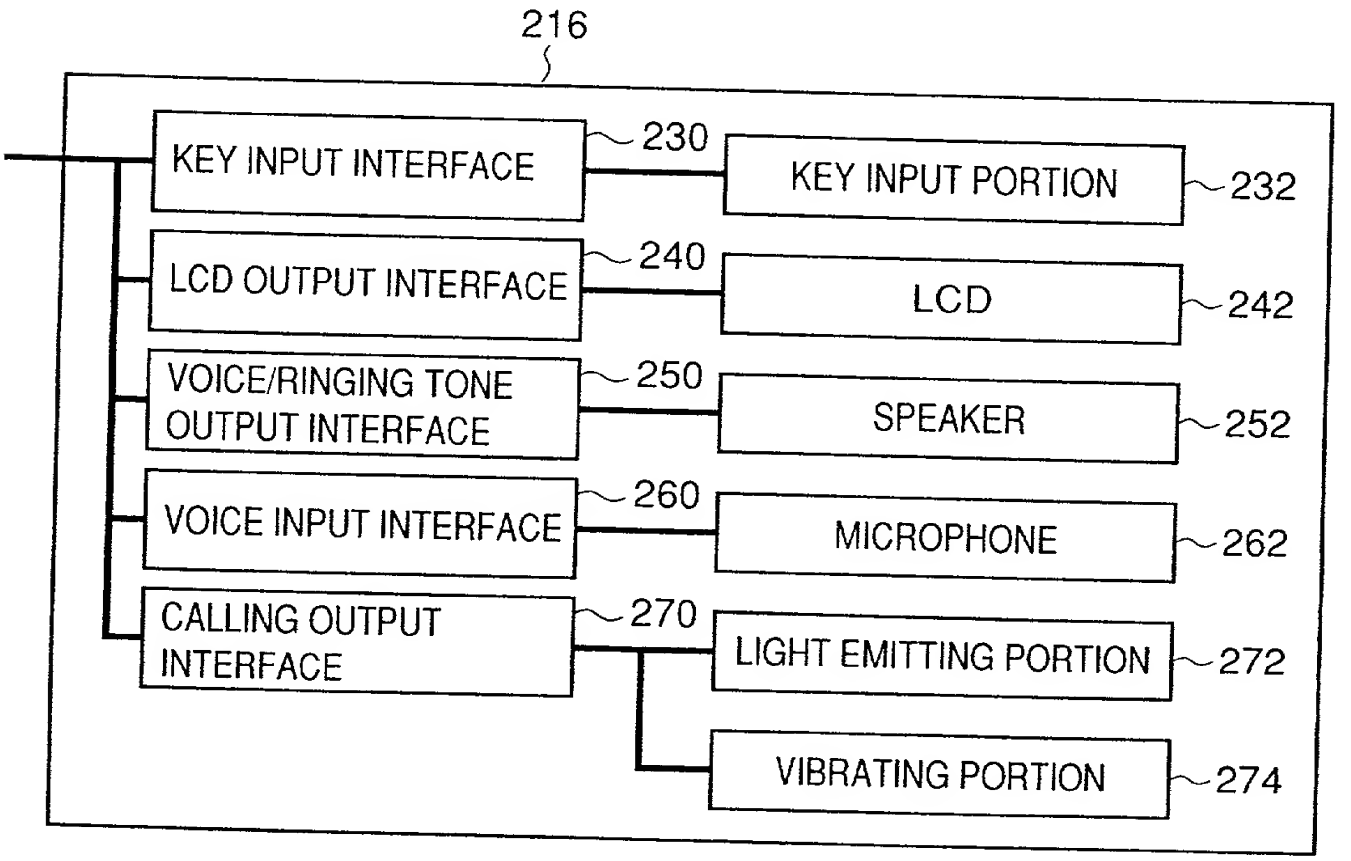
216
KEY INPUT INTERFACE
230
KEY INPUT PORTION
232
LCD OUTPUT INTERFACE
240
LCD
242
VOICE/RINGING TONE OUTPUT INTERFACE
250
SPEAKER
252
VOICE INPUT INTERFACE
260
MICROPHONE
262
CALLING OUTPUT INTERFACE
270
LIGHT EMITTING PORTION
272
VIBRATING PORTION
274

FIG. 11

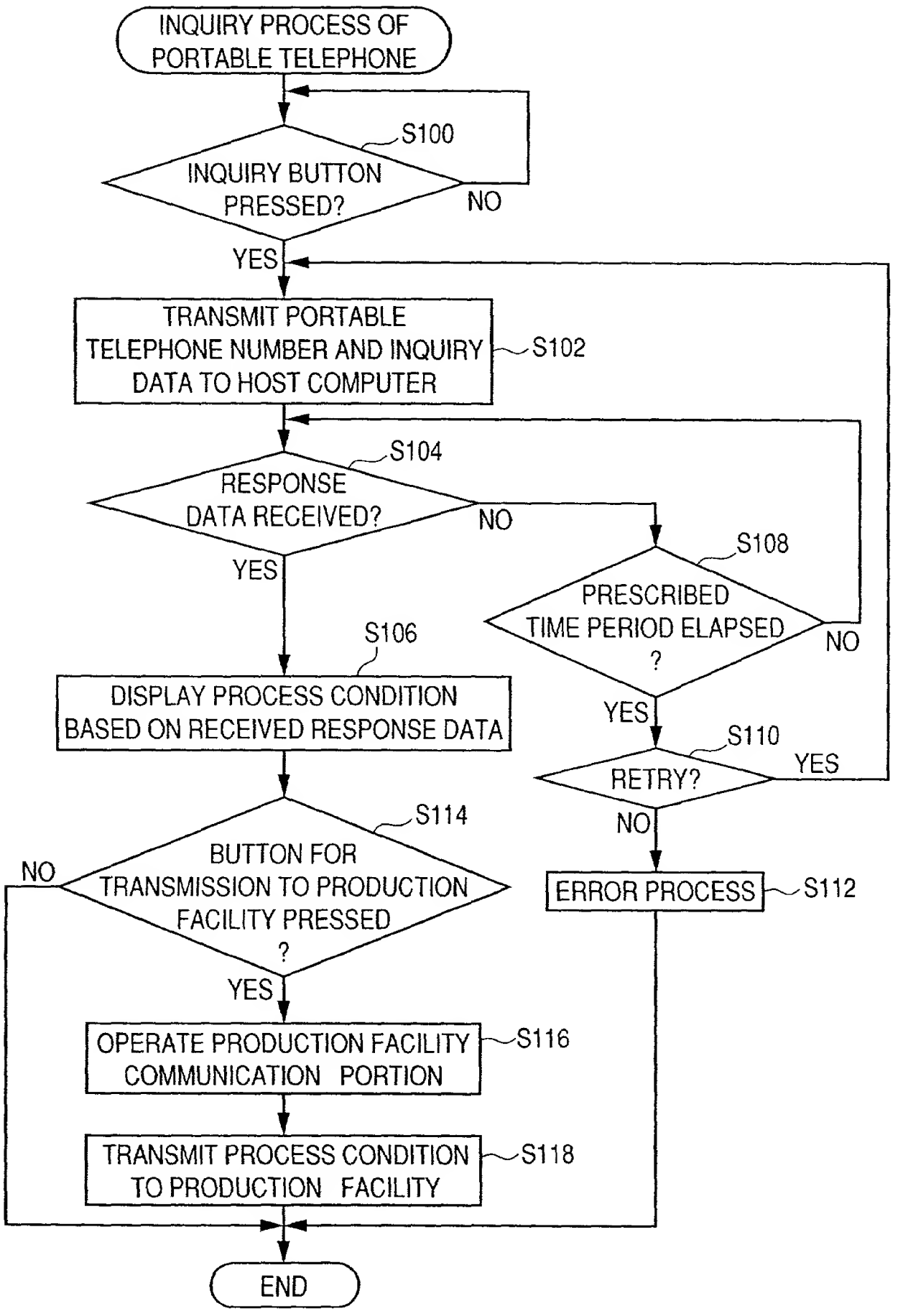
INQUIRY PROCESS OF PORTABLE TELEPHONE
S100
INQUIRY BUTTON PRESSED?
NO
YES
TRANSMIT PORTABLE TELEPHONE NUMBER AND INQUIRY DATA TO HOST COMPUTER
S102
S104
RESPONSE DATA RECEIVED?
NO
YES
S108
PRESCRIBED TIME PERIOD ELAPSED ?
NO
YES
S110
RETRY?
YES
NO
ERROR PROCESS
S112
S106
DISPLAY PROCESS CONDITION BASED ON RECEIVED RESPONSE DATA
S114
BUTTON FOR TRANSMISSION TO PRODUCTION FACILITY PRESSED ?
NO
YES
OPERATE PRODUCTION FACILITY COMMUNICATION PORTION
S116
TRANSMIT PROCESS CONDITION TO PRODUCTION FACILITY
S118
END

FIG. 12

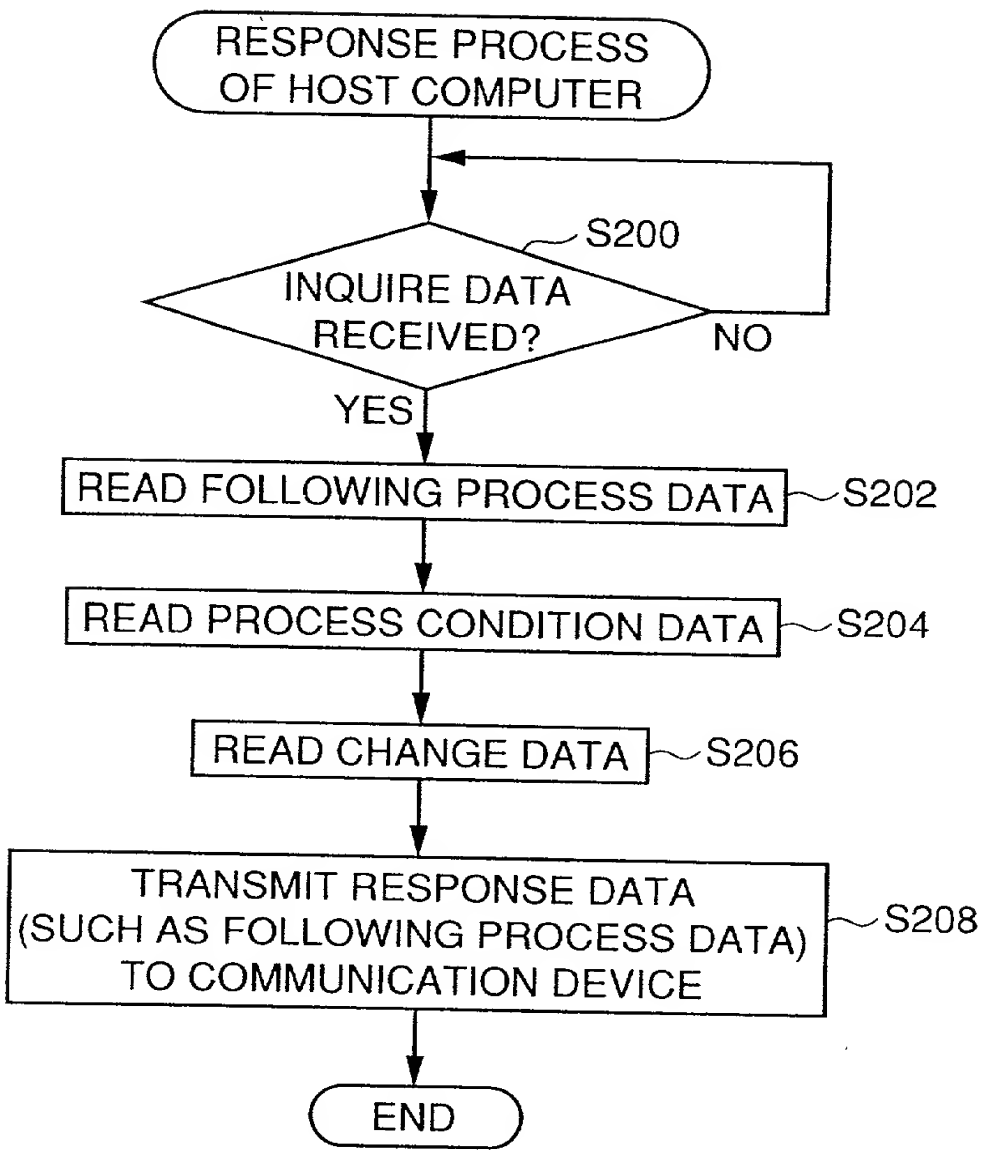
RESPONSE PROCESS OF HOST COMPUTER
S200
INQUIRE DATA RECEIVED?
NO
YES
READ FOLLOWING PROCESS DATA
S202
READ PROCESS CONDITION DATA
S204
READ CHANGE DATA
S206
TRANSMIT RESPONSE DATA (SUCH AS FOLLOWING PROCESS DATA) TO COMMUNICATION DEVICE
S208
END

FIG. 13

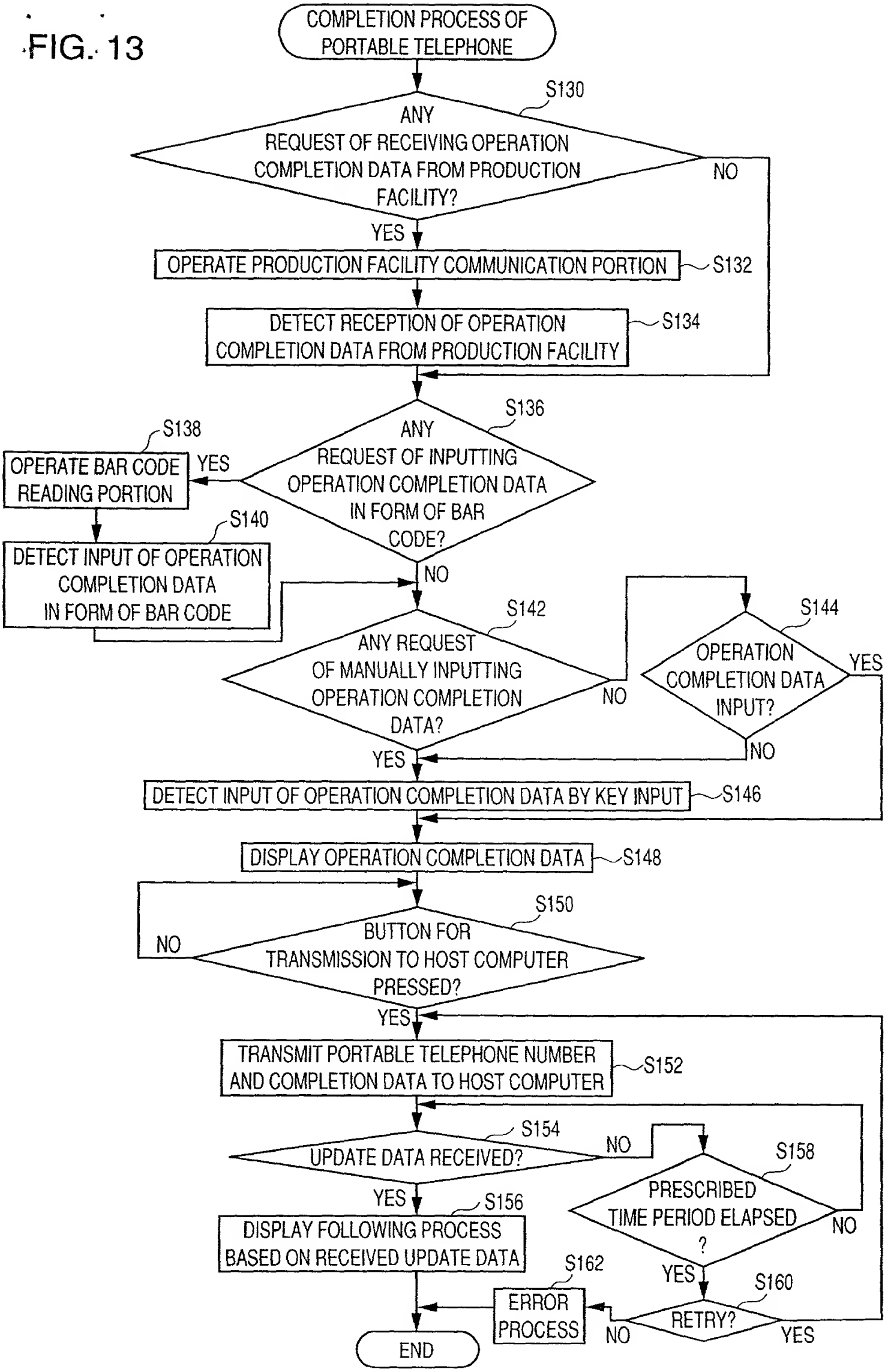
COMPLETION PROCESS OF PORTABLE TELEPHONE
S130
ANY REQUEST OF RECEIVING OPERATION COMPLETION DATA FROM PRODUCTION FACILITY?
NO
YES
OPERATE PRODUCTION FACILITY COMMUNICATION PORTION
S132
DETECT RECEPTION OF OPERATION COMPLETION DATA FROM PRODUCTION FACILITY
S134
S136
ANY REQUEST OF INPUTTING OPERATION COMPLETION DATA IN FORM OF BAR CODE?
S138
OPERATE BAR CODE READING PORTION
YES
S140
DETECT INPUT OF OPERATION COMPLETION DATA IN FORM OF BAR CODE
NO
S142
ANY REQUEST OF MANUALLY INPUTTING OPERATION COMPLETION DATA?
NO
S144
OPERATION COMPLETION DATA INPUT?
YES
NO
YES
DETECT INPUT OF OPERATION COMPLETION DATA BY KEY INPUT
S146
DISPLAY OPERATION COMPLETION DATA
S148
S150
BUTTON FOR TRANSMISSION TO HOST COMPUTER PRESSED?
NO
YES
TRANSMIT PORTABLE TELEPHONE NUMBER AND COMPLETION DATA TO HOST COMPUTER
S152
S154
UPDATE DATA RECEIVED?
NO
YES
S156
DISPLAY FOLLOWING PROCESS BASED ON RECEIVED UPDATE DATA
S158
PRESCRIBED TIME PERIOD ELAPSED ?
NO
YES
S160
RETRY?
NO
YES
S162
ERROR PROCESS
END

FIG. 14

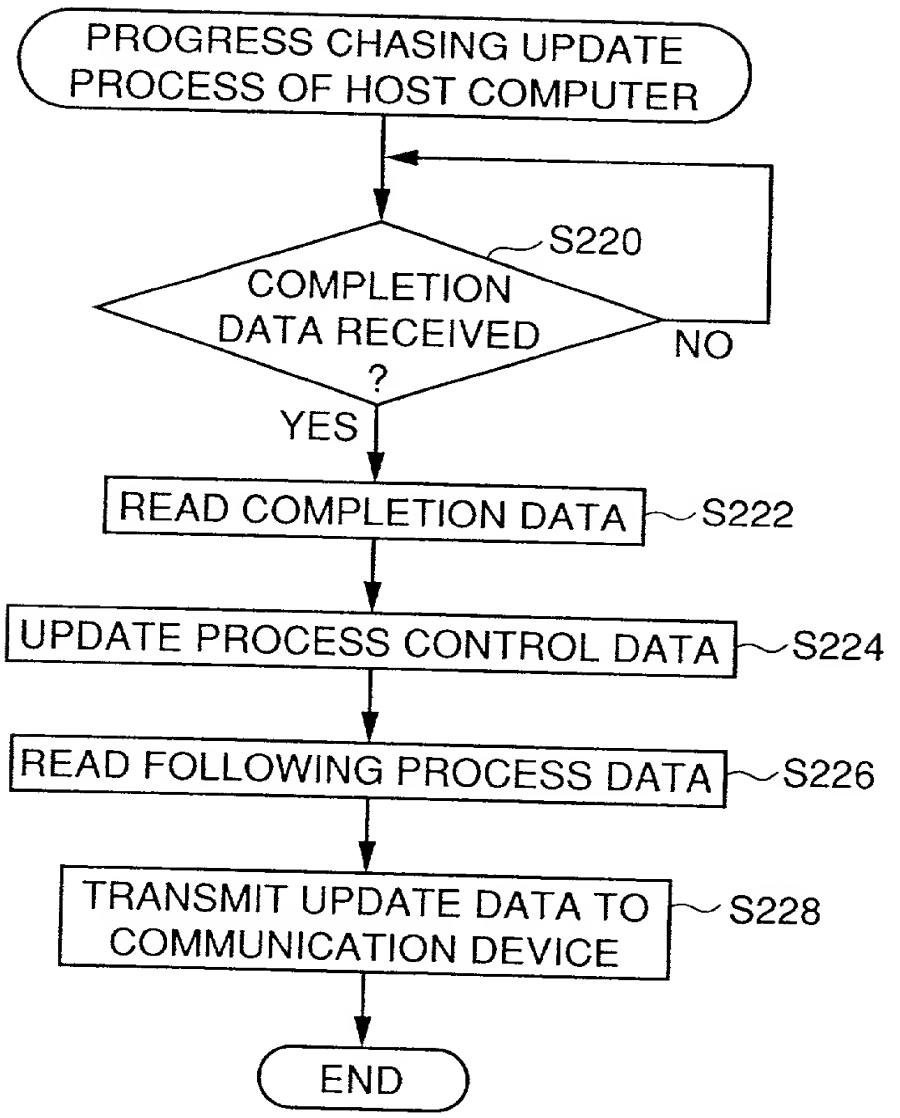
PROGRESS CHASING UPDATE PROCESS OF HOST COMPUTER
S220
COMPLETION DATA RECEIVED ?
NO
YES
READ COMPLETION DATA
S222
UPDATE PROCESS CONTROL DATA
S224
READ FOLLOWING PROCESS DATA
S226
TRANSMIT UPDATE DATA TO COMMUNICATION DEVICE
S228
END

FIG. 15

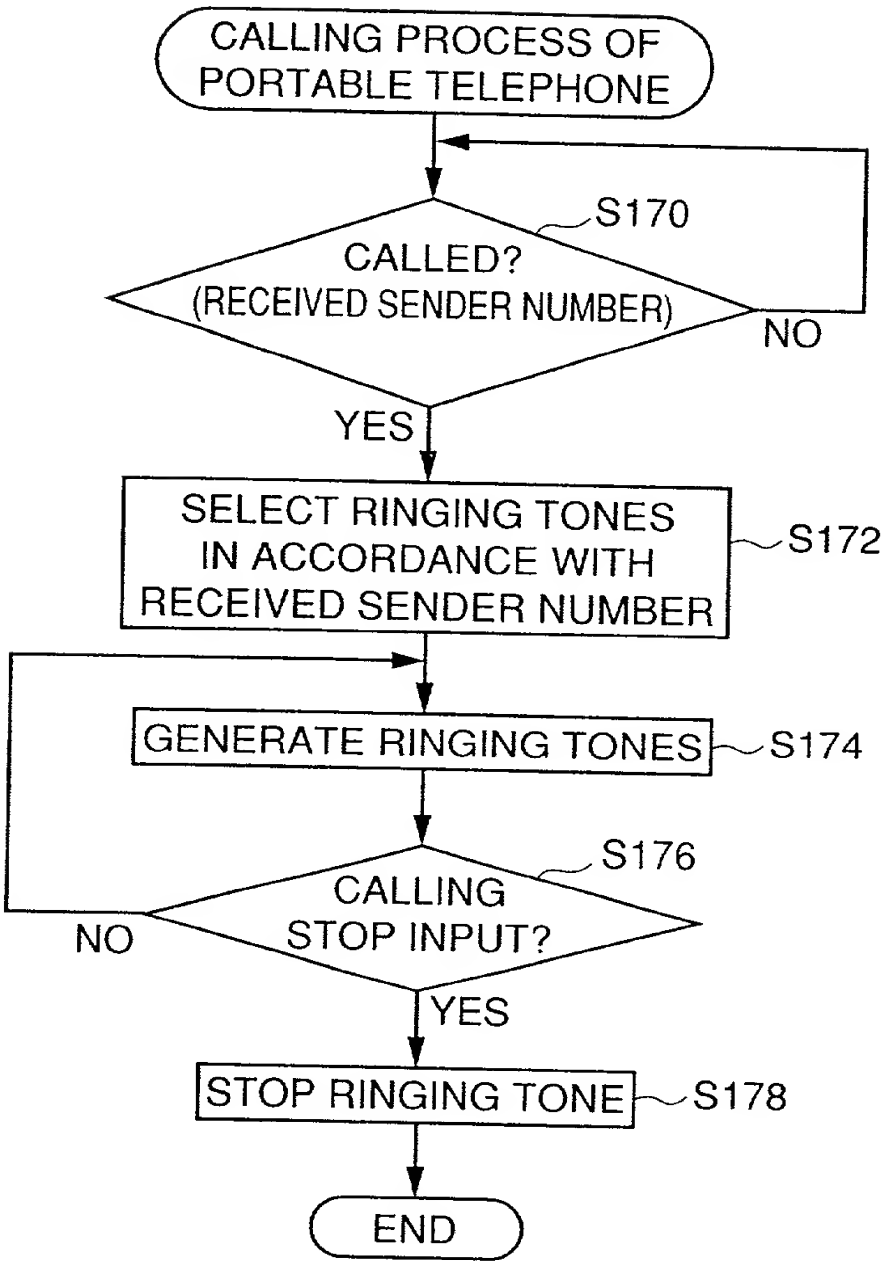
CALLING PROCESS OF PORTABLE TELEPHONE
S170
CALLED? (RECEIVED SENDER NUMBER)
NO
YES
SELECT RINGING TONES IN ACCORDANCE WITH RECEIVED SENDER NUMBER
S172
GENERATE RINGING TONES
S174
S176
CALLING STOP INPUT?
NO
YES
STOP RINGING TONE
S178
END

FIG. 16

(A)

PRODUCT NUMBER : 1002
LOT NUMBER : 0004140002

FOLLOWING PROCESS: STEP K

(B)

FOLLOWING PROCESS: STEP K
FOLLOWING PROCESS PRODUCTION FACILITY
K001
K002 ○
K003

(C)

K002
K003
PROCESS CONDITION
AMOUNT OF CUT 1.25mm

(D)

AMOUNT OF CUT 1.25mm
PROCESS HISTORY
STEP H: CUTTING ERROR
STEP C: OVEREDGE

(E)

AMOUNT OF CUT 1.25mm
PROCESS CONDITION CHANGE
STEP K
AMOUNT OF CUT−0.55mm

FIG. 17

(A)

PRODUCT NUMBER : 1002
LOT NUMBER : 0004140002
PRODUCTION FACILITY : K002
INPUT COMPLETION DATA

(B)

INPUT COMPLETION DATA
1) RECEIVE FROM PRODUCTION FACILITY
2) INPUT BAR CODE
3) KEY INPUT

(C)

SELECT
3

COMPLETION DATA RECEIVED
K002 NORMAL COMPLETION

(D)

SELECT
2

BCR INPUT
K002 NORMAL COMPLETION

(E)

SELECT
3

KEY INPUT
NORMAL☐

(F)

STEP K
PRODUCTION FACILITY K002
NORMAL END
TO BE TRANSMITTED? (Y/N) ☐

FIG. 18

INQUIRE DATA PORTABLE TELEPHONE→HOST COMPUTER
(BEFORE STARTING OPERATION)

(A)

INQUIRE DATA FLAG	DATA END FLAG

RESPONSE DATA HOST COMPUTER→PORTABLE TELEPHONE
(BEFORE STARTING OPERATION)

(B)

RESPONSE DATA FLAG	FOLLOWING PROCESS DATA	FOLLOWING PROCESS CONDITION DATA	CHANGE DATA	DATA END FLAG

COMPLETION DATA PORTABLE TELEPHONE→HOST COMPUTER
(AFTER COMPLETING OPERATION)

(C)

COMPLETION DATA FLAG	OPERATION PROCESS COMPLETION DATA	DATA END FLAG

UPDATE DATA HOST COMPUTER→PORTABLE TELEPHONE
(AFTER COMPLETING OPERATION)

(D)

UPDATE DATA FLAG	FOLLOWING PROCESS DATA	DATA END FLAG